

### **REMARKS**

In response to the Request for Information, the Examiner is advised that the only “cited references” is the Japanese reference cited in the IDS filed July 15, 2009.

The rejection of claims 30, 32, 33, 35-39, and 42-50 under 35 U.S.C. § 112, first paragraph, is respectfully traversed. It is respectfully submitted to be clear that the claims contain subject matter which is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had, at the time the application was filed, possession of the claimed invention.

The written description required does not require *in haec verba* between the claims and the supporting specification and here, the prior amendment to the claims merely set forth what is actually described in the specification. Thus, the specification describes a gelatin-free soft caramel containing polysaccharide hydrocolloid on, for instance, pages 10-12, and there is no description in those passages, or elsewhere in the application, of the additional presence of another type of hydrocolloid. More broadly, nowhere in the specification is a gelatin free soft caramel described in which there is a hydrocolloid which does not constitute a polysaccharide hydrocolloid. Thus, the application describes a gelatin-free soft caramel which contains hydrocolloid where the hydrocolloid is a polysaccharide hydrocolloid, and the amendment to the claims is merely making explicit what is already inherent in the description. This is also true from the point of view that there are only two possibilities, i.e., a non-polysaccharide hydrocolloid is either present or absent, and the specification only describes

compositions where it is absent. Clearly, it would be recognized that the inventors had possession of compositions where only polysaccharide hydrocolloid is present.

Since the claims are merely making explicit what is already described in the application and *in haec verba* description is not required, it is respectfully submitted that those skilled in the art would recognize that the invention where the polysaccharide hydrocolloid is the only hydrocolloid present was in the possession of the inventors when the application was filed.

It is respectfully submitted that the rejection of claim 35 under 35 U.S.C. § 112, second paragraph, can be withdrawn in light of the above correction using the correct wording "maltitol syrup" in place of the wrong wording "glucose syrup."

Claim 30 has been amended to state that the non-crystalline sweetener phase is formed of the maltitol syrup, polydextrose or a mixture thereof and dependent claims which are now specific to either the maltitol syrup or polydextrose are presented.

The claimed invention addresses the technical problem of providing soft caramels in which the normally present gelatin is replaced by a non-animal substance that has properties such as low elasticity, high water dispersibility, good bodying and texturing properties, good mouth feel and no characteristic flavor. This has been accomplished by combining a soft caramel base which contains a polysaccharide hydrocolloid texturing agent, crystalline isomaltulose and a noncrystalline sweetener phase which is maltitol syrup or polydextrose, or a mixture thereof. A particular feature of this soft caramel is that the only crystalline sweetener present is isomaltulose.

Non-crystalline high intensity sweeteners can be present and the composition is sucrose-free. The claims under consideration recite that the composition is sucrose free.

It has been surprisingly established that in these combinations, the selected polysaccharide hydrocolloid has properties that enable the complete replacement of gelatin as texturing agent in soft caramels while retaining the special texture and consistency of the soft caramels. Moreover, the temperature stability of crystalline isomaltulose can be insufficient. See, e.g., "Coloration and Other Chemical Changes in the Manufacture of Palatinose Candy", and "Application for the Approval of Isomaltulose", both of record, which show that crystalline isomaltulose is heat-sensitive, shown by discoloration at temperatures over 100°C, such as used in preparation of the instant product (Example 1), and especially over the 120°C used in the examples of Barrett reference. Surprisingly, the temperature stability of crystalline isomaltulose is considerably improved by stabilizing effect of the polysaccharide hydrocolloids in the claimed combination. These aspects of the invention are unexpected and unpredictable. The comments on Office Action page 25 et seq. are respectfully submitted not to be well taken in that the properties of a potential ingredient is relevant to its use in a product, and they ignore the fact the what is there being called "substantially the same product" is not a product in any one reference but instead is a hindsight generated combination of materials without consideration of limitations stated in the references themselves.

There are two independent claims in this case, 30 and 62, and it is convenient to discuss the various rejections of each of these, together with the claims dependent on them, as a group.

Claim 30 and the claims ultimately dependent on claim 30 have been rejected under 35 USC § 103 based on a number of combinations. In particular, claims 30, 32, 33, 35, 38, 39, 42, 44-47, and 49 are rejected over Barrett in view of Koji; claims 36, 37, 43, 48 and 50 are rejected over Barrett in view of Koji and Willibald-Ettle; and claims 30, 35-39, and 44-49 are rejected over Nakano in view of Applicants Admitted Prior Art, Koji, Igoe, and Lees. All of these rejections are respectfully traversed.

Barrett discloses a chewy confectionary product in which some or all of the gelatin has been replaced by oxidized starch and which contains sugar or a sugar substitute, or both. The Office has previously acknowledged that Barrett fails to disclose the use of isomaltulose and treated this deficiency as the only thing lacking in the reference. There are, however, other deficiencies.

First, Barrett is predicated on substituting oxidizing starch (a modified starch obtained as described at col. 4, line 9 et seq.) for some or preferably all of the gelatin in a chewy confection (col. 2, lines 52-55; col. 4, lines 4-8) in order to overcome the disadvantages associated with the gelatin while retaining the texture provided to the composition by the gelatin (col. 2, lines 52-55). The oxidizing starch is a texturing agent and is essential, and therefore would necessarily be present in any of the proposed modifications of Barrett on which this group of rejections are based. Eliminating the modified starch of Barrett is contraindicated by the teachings of this reference. Indeed, the Office Action of October 8, 2010 observed on page 5 that “the office has not presented any suggestion or motivation to exclude the modified starch of Barrett.” In addition, it is not permissible to modify a reference in such a way as to destroy the invention on which it is based. *Ex parte Hartmann*, 186 USPQ 366 (BPAI 1974); *In re*

*Hedges*, 228 USPQ 685, 687 (Fed. Cir. 1986) (“It is impermissible within the framework of section 103 to pick and chose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art”). Therefore, any composition based on a modification of Barrett must include an oxidizing starch. However, all of the claims under consideration exclude the possible presence of an oxidizing starch.

Second, Barrett does not recognize the need to simultaneously provide an isomaltulose crystalline sweetener phase and a non-crystalline sweetener phase in a gelatin-free soft caramel.

Third, Barrett also does not teach or suggest the concurrent presence of a non-crystalline sweetener phase which is maltitol syrup, polydextrose or a mixture thereof. The reference does not mention polydextrose at all. It does mention the possible presence of maltitol but only when the composition is sugar based and the maltitol is used to replace crystalline sugar of the crystalline sweetener phase. Column 4, lines 45-50. The syrups identified at lines 43-45 do not include maltitol syrup.

Fourth, the Barrett composition can optionally contain both gum arabic and gellan gum, but that is true only when the composition contains the oxidizing starch, which the claimed composition does not contain. There is no teaching or suggestion in this reference of using gum arabic and gellan gum when the oxidizing starch is absent. Also, the contention in the Office Action that the gum arabic and gellan gum can be in a ratio of 5-15:1 is wrong because it is a value calculated based on the content of the gellan

being 0.5-5% while that range relates to the ingredients set forth in the paragraph at column 2, lines 10-23 and gellan is not included in that list of ingredients.

The art which is proposed to be combined with Barrett does not cure the above deficiencies in that primary reference.

While Koji does teach that crystalline palatinose exists, it also teaches that caramel properties such as formability, etc., were realized when there was a balance of sugar and starch, but that when an attempt was made to use palatinose alone instead of sucrose while eliminating wheat flour, significant problems resulted, and the properties which were achieved due to the presence of sugar were eliminated (page 5, first paragraph). Koji found that those problems could be addressed by adding palatinose microcrystals at a temperature at which they did not melt when the composition contains palatinose, other non-sucrose sugars, milk protein and lipids but which did not contain sucrose, starch or wheat flour (page 3, lines 1-3; page 7, lines 3-11).

Koji does not teach or suggest the use of either polydextrose or maltitol syrup as a non-crystalline sweetener. To the extent that this reference even mentions maltitol, it is always in powder form. Thus the passages on pages 12 and 13 and Example 3 refer to "powdered reduced malt sugar".

Like Barrett, Koji does not teach or suggest using a non-crystalline sweetener phase which is maltitol syrup, polydextrose or a combination thereof, in combination with a crystalline phase which is isomaltulose, together with the recited polysaccharide hydrocolloid texture agents to produce a gelatin-free soft caramel, nor that such a combination would produce the advantages realized in the present invention.

Barrett requires the use of an oxidized starch because only by replacing the gelatin with oxidized starch can the disadvantages associated with the gelatin be avoided (page 2, lines 51-57). Koji does not teach or suggest the use of the hydrocolloids of claim 30 or any reason to eliminate the oxidized starch of Barrett. Even if one were to use isomaltulose, as suggested in the rejection, the claimed composition would not be realized because an oxidized starch would still necessarily be present.

Further, Koji also teaches away from the claimed invention. It teaches that when isomaltulose was used as the only sugar substitute, it significantly degraded the properties of a caramel (page 5, first paragraph). Koji also tells the skilled person not to use starch when isomaltulose is being employed by indicating that the caramels of this reference are made without using the wheat flour (which contains starch), as required in the past (page 5, lines 15-16); omitting the starch allows significant problems to be avoided (page 5, first full paragraph). It is, of course, not permissible to ignore these teachings.

There is nothing in the combination of Barrett and Koji which suggests that a non-crystalline sweetener phase which is not palatinose but instead is polydextrose and/or maltitol syrup be used in combination with a crystalline sweetener phase which is isomaltulose only, and the claim recited polysaccharide hydrocolloid texture agent would provide a soft caramel, which is gelatin-free and still has a very attractive texture and chewability, as well storage capability.

The Willibald-Ettle reference was cited only to show some feature of dependent claims 36, 37, 43, 48 and 50. It was not asserted to, nor in fact does it, cure

any of the basic deficiencies in the combination of Barrett and Koji. Accordingly, these claims are also patentable.

Turning to the rejections based on Nakano, this primary reference relates to a soft candy which has moldability and viscoelasticity equivalent to soft candies prepared by heating despite having not been subjected to heat. The candy contains a crystalline saccharide-containing powder stock, non-crystalline saccharide and other ingredients. As the Office Action acknowledges, there is no teaching or suggestion in this reference of a crystalline sweetener phase in which isomaltulose is the only crystalline sweetener, a caramel which is sucrose free, and employment of a non-crystalline saccharide which is maltitol syrup or polydextrose (or both). To overcome these deficiencies, the rejection relies on additional materials.

The first additional material is the Applicants' Admitted Prior Art which is indicated to refer to the background of the present application. However, the Office Action does not otherwise indicate the reason on which the background is being referenced unless it is for indicating a desire to avoid gelatin presence and if so, it must also be noted that the background indicates that the replacement of gelatin in foods is an extraordinarily difficult task. It is not seen where the so-called Applicants' Admitted Prior Art contributes to the rejection.

Koji is relied on to show isomaltulose but as discussed above, this reference teaches away from the present invention by teaching that use of isomaltulose as the only sugar substitute significantly degrades the properties of the caramel.



Igoe and Lees were cited for teachings regarding glucose syrup, whose inclusion in the instant claims was in error and has been remedied in the amendments made.

As apparent from the foregoing, the additional references are relevant only to the use of isomaltulose in the deficiencies in Nakano mentioned above, and even to that extent, they teach away from its use as the sole crystalline sweetener.

In light of the foregoing considerations, it is respectfully submitted the foregoing rejections of claim 30 and the claims dependent thereon should be withdrawn.

Independent claim 62 and the claims dependent thereon have been subjected to a series of rejections under 35 USC § 103. These rejections are of claims 31, 40, 41, 62-64 and 67-70 over Barrett in view of Koji, Igoe, and Lees; claims 61, 65, 66 and 71 over Barrett in view of Koji, Igoe and Willibald-Ettle; claims 32 and 33 over Nakano in view of Applicant's Admitted Prior Art, Koji, Igoe, Lees and Barrett; claims 31, 62 and 65-71 Nakano in view of Applicant's Admitted Prior Art, Koji, Lees, Sault, and Igoe; claims 40, 41, 63 and 64 Nakano in view of Applicant's Admitted Prior Art, Koji, Lees, Sault, Igoe, and Barrett; and claim 61 over Nakano in view of Applicant's Admitted Prior Art, Koji, Lees, Sault, Igoe, and Willibald-Ettle. All of these rejections are respectfully traversed.

Claim 62 is directed to a gelatin-free and sucrose-free soft caramel comprising a soft caramel base mass containing hydrogenated palm kernel fat, at least one

polysaccharide hydrocolloid as texturing agent, a crystalline sweetener phase which is only isomaltulose, and a noncrystalline sweetener phase which is polydextrose.

Most of the references applied to this group of claims have been discussed above. None teach or suggest a crystalline sweetener phase containing only isomaltulose in a composition containing polydextrose, and the Koji reference actually teaches away from using isomaltulose without another crystalline sweetener.

With respect to polydextrose, none of the Barrett, Koji, Nakano, Lees, Willibald-Ettle, or the background of the present application have any teachings relevant to polydextrose, and especially to the use of polydextrose as a non-crystalline sweetener.

Igoe has been cited to teach that polydextrose is a bulking agent which can replace sugars in reduced calorie foods, and can be used in chewing gum and candy. However, the use of polydextrose in soft caramels is not taught or suggested in this reference, and particularly, there is no suggestion that polydextrose in a soft caramel base mass can provide an improved recognizable feeling while the caramel is being ingested. In addition, it is not taught or suggested that polydextrose could be used as a non-crystalline sweetener phase, especially in combination with a crystalline sweetener phase. Also, since Koji teaches its composition has good properties, such as formability, shape-retention, and texture, there is no reason to use polydextrose as a bulking and texturing agent in order to achieve properties already present.

The Sault reference includes polydextrose in a long list of sugars and sugar replacement materials. Sault does not teach or suggest that there would be any advantage for using polydextrose instead of any other of the listed sugar or sugar replacement materials. This reference therefore does not provide any reason for the skilled person to replace a non-crystalline sweetening phase with polydextrose, and more particularly, a non-crystalline sweetening phase which may be disclosed in any of Barrett, Nakano, or Koji.

Thus, neither Igoe or Sault provides the person skilled in this art to employ polydextrose in combination with hydrogenated palm kernel fat, a polysaccharide hydrocolloid as a texturing agent, and a crystalline sweetener where the isomaltulose is the only crystalline sweetener present, and the caramel is both sucrose free and gelatin free.

It is argued in the Office Action that it would be obvious to use polydextrose in the Barrett composition since that composition optionally comprises humectants which include citric acids, and Igoe teaches that polydextrose is a humectant, and a sugar replacer that contains citric acid. However, even if a skilled person desired to use polydextrose as a humectant in Barrett's composition, it would not be used as a non-crystalline sweetener because Barrett teaches the optional humectant can be present in an amount up to 5 wt % whereas the typical non-crystalline sweetener phase is present in an amount of at least about 30 %. The skilled person knows that whatever is being used as a non-crystalline sweetener has to be present in a greater amount than the humectant.

Claim 62 recites the presence of hydrogenated palm kernel fat. The working examples in this application show the preparation of an excellent composition using this hydrogenated palm kernel fat. Lees does show use of hardened palm kernel oil but provides no reason to use it in a composition which contains polydextrose, isomaltulose and a polysaccharide hydrocolloid. Reliance on Lees can therefore only be based on using the instant claims as a template, and that is improper.

Accordingly, these rejections should also be withdrawn.

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance.

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